Monday, 11/27/2006 10:05:29 AM

Kim Johnston

Process Sheet

Customer

: CU-DAR001 Dart Helicopters Services

Type

Job Number

: 29700

Estimate Number

: 10280

P.O. Number

:NIA

This Issue

: 11/27/2006

Prsht Rev.

First Issue

: 29399

Previous Run Written By

Checked & Approved By Comment

S.O. No. :NIA

New issue KJ/DS : Est Rev:A 4.02.18

: MACHINED PARTS

Drawing Name

: BRACKET ASSEMBLY

Part Number

: D3137043 : D3137 REV E

Drawing Number Project Number

: N/A

Drawing Revision

:NA Material **Due Date**

: 12/20/2006

Qty:

4 Um:

Each

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description:

1.0 M174B0500X02000

Comment: Qty.:



0.4875 f(s)/Unit Total: 1.9501 f(s)

Material: 17-4 SS Bar per AMS 5604/5643

(M17-4-B0.500x02.000) Identify for D3137-7

Batch: M103089

17-4 SS Bar



Comment: BAND SAW

ABAND SAW

Cut blanks: (.500" x 2.000") 5.570" long

3.0

2.0

HAAS CNC VERTICAL MACHINING #



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3137-7 as per Folio FA3308and Dwg D3137 Identify as D3137-7

2-Deburr

3-Scribe batch number

INSPECT PARTS AS THEY COME OFF MACHINE

4.0

QC2

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

01.01,18

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
egypti St. Terrori							

Part No: D3/37043. PAR #: NIA Fault Category: Proc Maching Part NCR: Yes No DQA: Date: 07/02/05

QA: N/C Closed: _______ Date: 07.02.05

NCR:	29700) ;	WORK OR	DER NON-CONFORMANCE	E (NCR)			
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section B Action Description Chief Eng	Sign &	Verification Section C	Approval Chief Eng	Approval QC Inspector
01.01.19	3.0	dool Stoke white machining	POSIONZ	-cannot relocate port in jis. Sci-p, destroy	01.019	07/01/23	Conour	M 07/01/23
	,							

NOTE: Date & initial all entries

Monday, 11/27/2006 10:05:29 AM Date: User: Kim Johnston **Process Sheet** Drawing Name: BRACKET ASSEMBLY Customer: CU-DAR001 Dart Helicopters Services Part Number: D3137043 Job Number: 29700 Job Number: Seq. #: Description: **Machine Or Operation:** SECOND CHECK 5.0 QC8 Comment: SECOND CHECK Guide D31373 6.0 4.0000 Each(s) Comment: Qty.: 1.0000 Each(s)/Unit Total: Pick: Description Batch **Qty Part Number** GUIDE 1 D3137-3 Washer D31375 7.0 1.0000 Each(s)/Unit Total: 4.0000 Each(s) Comment: Qty.: Pick: **Qty Part Number** Description Batch Washer <u>B 2 724</u> 1 D3137-5 MS24694S101 Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s) Pick: Description Batch **Qty Part Number** Screw <u>M16941</u> 1 MS24694-s101 SMALL & MEDIUM FAB RESOURCE 1 9.0 SMALL FAB 1 Comment: SMALL & MEDIUM FAB RESOURCE 1 Assemble D3137-043 as per Dwg D3137 INSPECT WORK TO CURRENT STEP 10.0 QC5 Comment: INSPECT WORK TO CURRENT STEP PACKAGING 1 PACKAGING RESOURCE 11.0 Comment: PACKAGING RESOURCE #1 Identify and Stock Location:

Page 2

Form: rprocess

Dart Aerospace Ltd

DuitAo	·oopaoc	Lu									
W/O:			WO	RK ORDER CHANG	ES			- 4			
DATE	STEP	PR	PROCEDURE CHANGE				Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	•	PAR #:	Fault Categ	ory:	NCR: Y	es N	o DQ	A:	Date:		
									Date:		
NCR:			WORK ORDE	R NON-CONFORMA	NCE (N	CR)					
		Description of NC	Description of NC Corrective Action Section B			Verific		cation Approva	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		ın & ate	Secti	Section C	ection C	Chief Eng	QC Inspector
							:	,			

NOTE: Date & initial all entries

Date:

Monday, 11/27/2006 10:05:29 AM

User:

Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 29700

Part Number: D3137043

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

QC21

FINAL INSPECTION/W/O RELEASE







Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



Uotorov

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W/O:			WORK ORDER CHANGES						
DATE	STEP	PR	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
		·							
						!			
Part No	•	PAR #:	Fault Category:	NCR: Yes	No DQ	A:	Date:		

QA: N/C Closed: ____ Date: __

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC		Corrective Action Section B		Verification	A	A		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector		
							{			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	29700
Description: Bracket	Part Number:	D3137-7
Inspection Dwg: D3137 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.435	+/-0.010	0,434				
0.615	+/-0.010	0.619				
0.200	+/-0.010	0.201				
0.380	+/-0.010	0,385				
0.262	+/-0.010	0.262	_			
Ø0.500	+0.005/-0.000	80.504	j			
0.79	+/-0.030	0.795	1			
2.79	+/-0.030	2.760				
Ø0.560	+0.005/-0.000	80.565	_			
0.595	+/-0.010	0.595	_			
0.950	+/-0.010	0.945				
0.605	+/-0.010	0.605				
1.880	+/-0.010	1.881				
2.48	+/-0.030	2.486				4000
4.975	+/-0.010	4.975				
5.41	+/-0.030	5.412				
0.032	+/-0.010	0.027				
0.063	+/-0.010	0.064				
R0.062	+/-0.010	R0.062	•			
0.162	+/-0.010	0.157				

Measured by:	and	Audited by:	MS	Prototype Approval:	N/A
Date:	07/01/17	Date:	07/01/17	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	03.11.12	New Issue P/O D3137-043	KJ/RF	
В	04.06.15	Changed & added dimensions	KJ/JLM	
С	06.03.15	Dwg Rev update	KJ/JLM of	



		to the same of the	
DESI	DS	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHEC	KED ,	APPROVED	DRAWING NO. REV. E
	A	#	D3137 SHEET 1 OF 5
DATE			TITLE SCALE
05.	11.23		BRACKET ASSEMBLY 1:1
Ą		02.04.17	NEW ISSUE
В		03.01.16	ADD RIDGES; ADD MAT'L PROP.
С		03.08.15	ADD -043
D		04.11.03	RE-DESIGN D3137-5; CHANGE DIMS
Ε		05.11.23	ADD -045

RELEASE 05.12.09

> MS24694-S101 SCREW D3137-5 WASHER D3137-3 GUIDE INSTALL ON SAME SIDE AS C'SINKS (OPPOSITE SIDE FROM RIDGES)

D3137-1 BRACKET (-041 SHOWN) OR. D3137-7 BRACKET (-043 SIMILAR) OR

D3137-9 BRACKET (-045 SIMILAR)

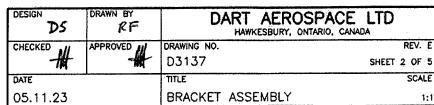
D3137-041 BRACKET ASSEMBLY (SHOWN) D3137-043 BRACKET ASSEMBLY (SIMILAR) D3137-045 BRACKET ASSEMBLY

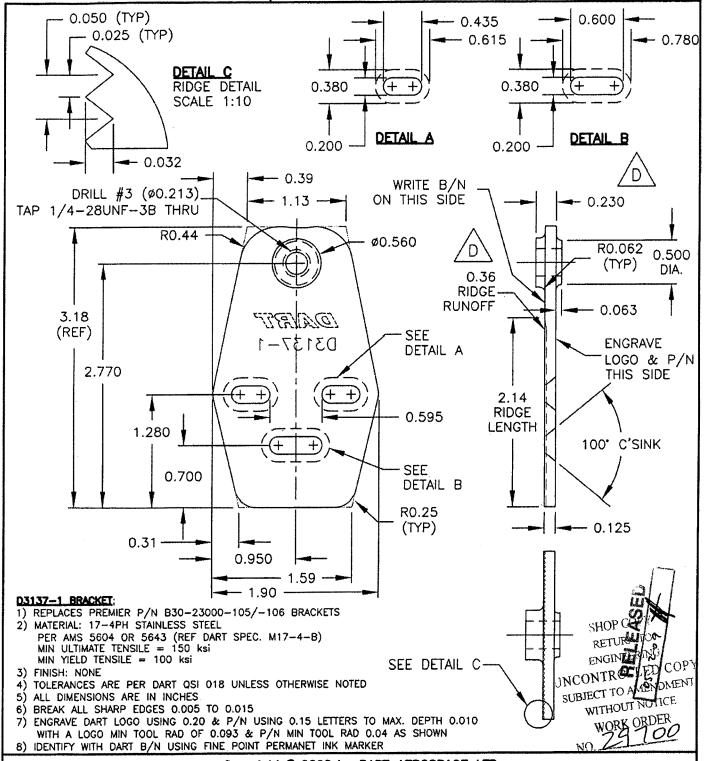
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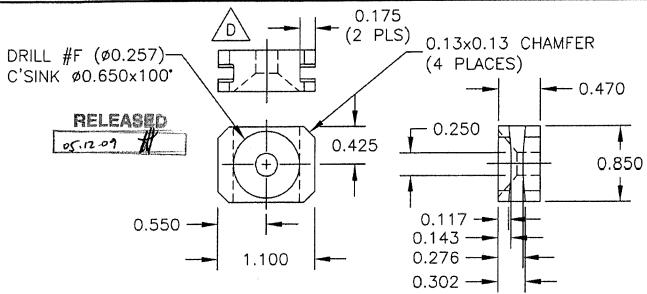


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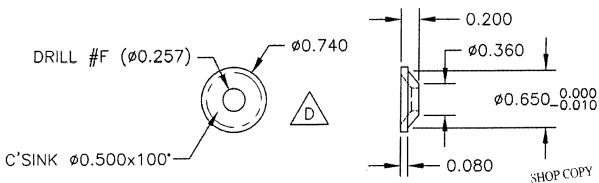


DESIGN DS	DRAWN BY	DART AEROS HAWKESBURY, ONT	
CHECKED #	APPROVED #	DRAWING NO. D3137	REV. E SHEET 3 OF 5
DATE	<u> </u>	TITLE	SCALE
05.11.23		BRACKET ASSEMBLY	1:1



D3137-3 GUIDE

- 1) REPLACES PREMIER P/N B30-23000-207
- 2) MATERIAL: DELRIN BAR (REF DART SPEC. M-DELRIN-B)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL EDGES 0.005 TO 0.015



D3137-5 WASHER

2) MATERIAL: 6061-T6 (QQ-A-225/8 OR QQ-A-200/8) BAR (REF DART SPEC. M6061J6R) MEND 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

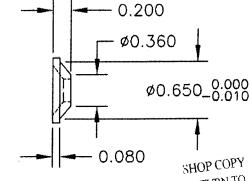
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

5) ALL DIMENSIONS ARE IN INCHES

6) BREAK ALL EDGES 0.005 TO 0.015

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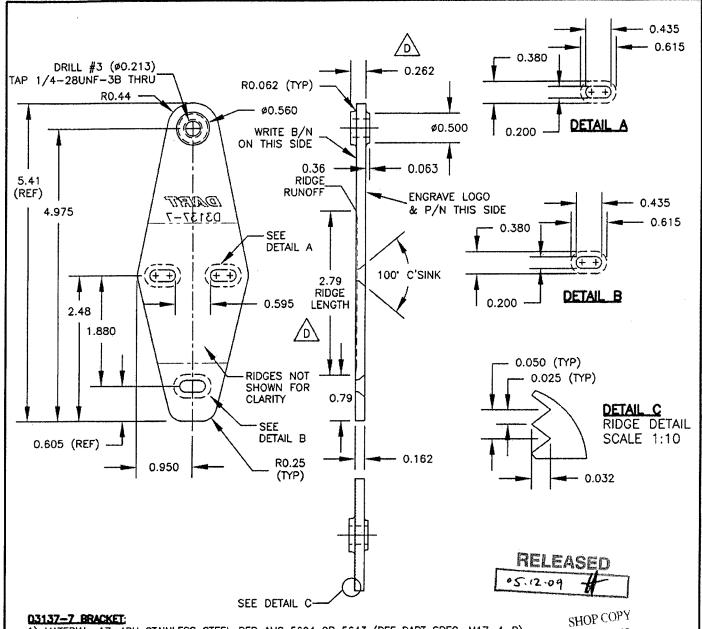
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CHECKED	APPROVED 1	DRAWING NO.	REV. E SHEET 4 OF 5
DATE		TITLE	SCALE
05.11.23		BRACKET ASSEMBLY	2:3



03137-7_BRACKET:

1) MATERIAL: 17-4PH STAINLESS STEEL PER AMS 5604 OR 5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi MIN YIELD TENSILE = 100 ksi

FINISH: NONE

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

4) ALL DIMENSIONS ARE IN INCHES

5) BREAK ALL SHARP EDGES 0.005 TO 0.015

ENGRAVE DART LOGO USING 0.20 & P/N USING 0.15 LETTERS TO MAX. DEPTH 0.010 WITH A LOGO MIN TOOL RAD OF 0.093 & P/N MIN TOOL RAD 0.04 AS SHOWN

7) IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

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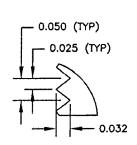
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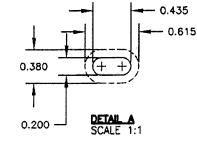
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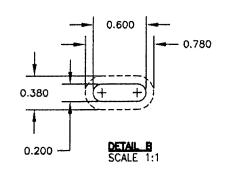
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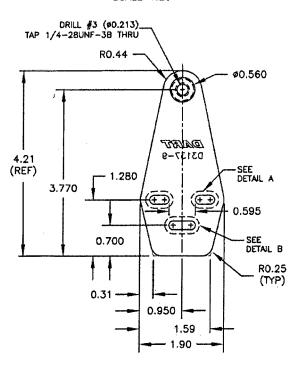
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CHECKED J.	APPROVED	DRAWING NO.	REV. E
#	1 #	D3137	SHEET 5 OF 5
DATE		TITLE	SCALE
05.11.23		BRACKET ASSEMBLY	1:2.

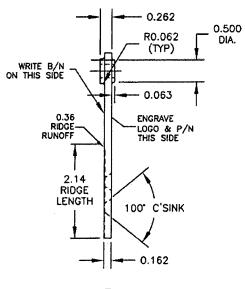


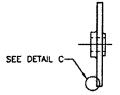




DETAIL C RIDGE DETAIL SCALE 1:20









1) REPLACES PREMIER P/N B30-23000-105/-106 BRACKETS
2) MATERIAL: 17-4PH STAINLESS STEEL
PER AMS 5604 OR 5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi

3) FINISH: NONE

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

6) BREAK ALL SHARP EDGES 0.005 TO 0.015

ENGRAVE DART LOGO USING 0.20 & P/N USING 0.15 LETTERS TO MAX. DEPTH 0.010 WITH A LOGO MIN TOOL RAD OF 0.093 & P/N MIN TOOL RAD 0.04 AS SHOWN

8) IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

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